

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



I BERGE BUNDERN IN ERRIKE HEN ERRIK BERGE BIG I IN DIE ERRIK BERGE BERGE BERGE HER EINER BERGER VERBERING BER

(43) International Publication Date 14 October 2004 (14.10.2004)

PCT

(10) International Publication Number WO 2004/087881 A3

(51) International Patent Classification⁷: C07C 303/00

(21) International Application Number:

PCT/US2004/009375

(22) International Filing Date: 26 March 2004 (26.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/458,144

27 March 2003 (27.03.2003) US

(71) Applicant (for all designated States except US): SMITHKLINE BEECHAM CORPORATION [US/US]; One Franklin Plaza, Philadelphia, PA 19101 (US).

(72) Inventor; and

- (75) Inventor/Applicant (for US only): MARTIN, Michael, Tolar [US/US]; GlaxoSmithKline, Five Moore Drive, PO Box 13398, Research Triangle Park, NC 27709 (US).
- (74) Agents: LEVY, David, J. et al.; GlaxoSmithKline, Corporate Intellectual Property Department, Five Moore Drive, PO Box 13398, Research Triangle Park, NC 27709 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

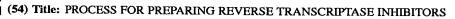
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 11 November 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.





INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/09375

A. CLA	SSIFICATION OF SUBJECT MATTER				
IPC(7)	: C07C 303/00				
US CL	: 564/86, 87				
According to	o International Patent Classification (IPC) or to bo	th national a	lossification - 4 TDG		
B. FIEI	DS SEARCHED	ou national (classification and IPC		
3.6					
Minimum de	ocumentation searched (classification system follow	wed by class:	ification symbols)		
0.8. : 3	564/86, 87				
Documentati	ion seerched other than minimum days and it				
	ion searched other than minimum documentation to	o me extent t	that such documents are includ	ed in the fields searched	
Electronic d	ata hasa congultad duning the intermedia at				
CAS ONLIN	ata base consulted during the international search (IE AND EAST	name of data	a base and, where practicable,	search terms used)	
C. IS CIVELLY	IL AID EAGI				
C. DOC	UMENTS CONSIDERED TO BE RELEVANT				
Category *		 			
A	Citation of document, with indication, where	e appropriate	e, of the relevant passages	Relevant to claim No.	
A	WO 01/17982 A1 (GLAXO GROUP LIMITED)	15 March 2	001, see page 59.	1-14	
	US 3,828,078 A (MROZIK) 06 August 1974, see entire document.				
A				1-14	
				1	
			•	l .	
				1	
	•			į.	
1				1	
				ŀ	
				ļ	
	•				
í	•				
			İ		
İ					
[
Further	documents are listed in the continuation of Box C.	.	See patent family annex.		
Spe	cial categories of cited documents:	«Т»	-		
-		•	later document published after the inte- date and not in conflict with the applica	mational filing date or priority	
of particula	lefining the general state of the art which is not considered to be		principle or theory underlying the inve	ntion but cited to understand the	
-		"X"			
B" earlier appl	ication or patent published on or after the international filing date		document of particular relevance; the considered novel or cannot be consider	ed to involve as invention	
	which may throw doubts on priority claim(s) or which is cited to		when the document is taken alone	ca to myorve an inventive step	
earannan in	e publication date of another citation or other special reason (as	"Y"	document of posticular releases of	•• ••	
specified)	•	•	document of particular relevance; the considered to involve an inventive step	When the document in	
O" document re	eferring to an oral disclosure, use, exhibition or other means		combined with one or more other such	documents such combination	
			being obvious to a person skilled in the	art	
P" document priority date	ublished prior to the international filing date but later than the	"& "	document member of the same patent fa	amily	
ate of the act	ual completion of the international search	Date of m	ailing of the international con-	oh sanost	
,		1	Date of mailing of the international search report		
6 September 2004 (16.09.2004)		f	11 OCT 2004		
Name and mailing address of the ISA/US		Apthorize	dofficer		
Mail Stop PCT, Attn: ISA/US		I LIAL	10 N 10 11 10 N 10	larrisqu	
Commissioner for Patents P.O. Box 1450		Jenar Par	so well-t	NOUNDER	
Alexandria, Virginia 22313-1450			No. (571)272-1600	· · · · · · · · · · · · · · · · · · ·	
Pacsimile No. (703) 305-3230			110. (3/1)2/2-1000	V	
		l			
acsimile No.	(703) 305-3230 210 (second sheet) (January 2004)	retephone	No. (571)272-1600	U	